

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 24 MAR 2005

WIP

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/IB2005/050405

International filing date (day/month/year)
31.01.2005

Priority date (day/month/year)
06.02.2004

International Patent Classification (IPC) or both national classification and IPC
A61B8/00

Applicant
KONINKLIJKE PHILIPS ELECTRONICS N.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk - Pays Bas
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl
Fax: +31 70 340 - 3016

Authorized Officer

Telephone No. +31 70 340-



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/B2005/050405

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2005/050405

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|------|
| Novelty (N) | Yes: Claims | 1-20 |
| | No: Claims | |
| Inventive step (IS) | Yes: Claims | |
| | No: Claims | 1-20 |
| Industrial applicability (IA) | Yes: Claims | 1-20 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V.

- 1 Reference is made to the following documents:
D1 : US 5 924 988 A (BURRIS ET AL) 20 July 1999 (1999-07-20)
D2 : PATENT ABSTRACTS OF JAPAN vol. 017, no. 285 (C-1066), 2
June 1993 (1993-06-02) &; JP 05 015529 A (MATSUSHITA ELECTRIC IND
CO LTD), 26 January 1993 (1993-01-26)
D3 : US 6 669 639 B1 (MILLER BRAD A ET AL) 30 December 2003 (2003-12-
30)
D4 : US 2003/220565 A1 (MESAROS ROBERT ET AL) 27 November 2003
(2003-11-27)
2. The present application does not meet the criteria of Article 33(1) PCT, because
the subject matter of claim 1 does not involve an inventive step in the sense of
Article 33(3)PCT.
 - 2.1 Document D1, which is considered to represent the most relevant state of the art
to the subject matter of claim 1, discloses (the references in parentheses applying
to this document):
An ultrasonic diagnostic imaging system including main body housing imaging
electronics and a control panel (see abstract; Figures 1, 2 and 5) comprising:
a flat panel display (530) (Figure 5; abstract) and
an articulating arm assembly to which the display is connected for adjusting the
viewing position of the display, the articulating assembly including a first arm (560)
movably mounted to the main body (by hinge 580) and a second arm movably
connected to the first arm and to the flat panel display (see column 6, lines 12-20;
Figure 5).
 - 2.2 The subject-matter of independent claim 1 differs from the disclosure of D1 in that:
one of the arms includes a 4-bar linkage.
 - 2.3 The problem to be solved by the present invention may therefore be regarded as
how to (re-)position the display over a wide range of viewing positions.
 - 2.4 In view of D2 the solution proposed in claim 1 of the present application cannot be

considered as involving an inventive step (Article 33(3) PCT) since D2 clearly teaches that the use of a 4-bar linkage (pair of links 9,10) with a piston for balancing the mass advantageously allows to position the display at an arbitrary position.

2.5 Therefore the features disclosed in D1 and D2 would be combined by the skilled person, without exercise of any inventive skills in order to solve the problem posed. The proposed solution in independent claim 1 thus cannot be considered inventive (Article 33(3) PCT).

3. In using the device of D1 (or of the combination of D1 and D2), the skilled person would routinely encounter that the articulating mechanism may strike any accessory device located on the top surface of cart (510) or may damage the surface itself. In order to solve this problem in a similar ultrasonic diagnostic imaging system, D3 teaches to incline the first arm by a fixed angle (see e.g. D3: column 2, lines 24-41; column 3, lines 20-23). Consequently, the subject-matter of independent claim 15 does not involve an inventive step.

Claims 16 to 17 do not involve an inventive step for the reasons given under point 2 above.

4. From document D1 is known an ultrasonic diagnostic imaging system including a wheeled cart, flat panel and an articulation mechanism (see point 2 above). The subject-matter of present claim 18 differs from this prior art in that it further comprises a laterally articulated control panel. This difference, however, does not involve an inventive step as this is rendered obvious by document D4 (see e.g. abstract). Claim 18, therefore, does not meet Article 33 (3) PCT for lack of inventive step. Claims 19 and 20 define features which are known from D1 and/or D2 and therefore do not involve an inventive step.

5. The further features of the remaining dependent claims are known or trivial in view of the prior art. Document D3 e.g. discloses the problem and solution associated with restricting the range of rotation to less than 360 degrees as in present claim 9

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/IB2005/050405

and with locking the arms and a user operated lock release as in present claims 4 to 5 (see e.g. D3: column 3, lines 13-22; column 4, lines 10-13; and column 3, lines 24-60).

Consequently, the subject-matter of claims 2 to 14 do not involve an inventive step.

Re Item VIII.

The various definitions of the subject-matter given in the plurality of independent claims, each reciting a different combination of limitations expressed at different levels of generalizations and largely repetitive, are such that the claims as a whole are not clear and concise. The requirements of Article 6 PCT, therefore, are not met.

Consequently, the different combinations of features recited in the plurality of independent claims do not allow to correctly identify "the claimed invention" on which an opinion in the sense of Article 33.1 PCT should be based.

Therefore, this presentation of a number of independent claims makes it difficult, if at all possible, to determine the matter for which protection is sought and places an undue burden to others seeking to establish the extent of monopoly requested.

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 24 MAR 2005

WIPO PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis:1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/IB2005/050405

International filing date (day/month/year)
31.01.2005

Priority date (day/month/year)
06.02.2004

International Patent Classification (IPC) or both national classification and IPC
A61B8/00

Applicant
KONINKLIJKE PHILIPS ELECTRONICS N.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk - Pays Bas
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl
Fax: +31 70 340 - 3016

Authorized Officer

Telephone No. +31 70 340-



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2005/050405

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2005/050405

Box No. V Reasoned statement under Rule 43bis.1(a)(I) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|------|
| Novelty (N) | Yes: Claims | 1-20 |
| | No: Claims | |
| Inventive step (IS) | Yes: Claims | |
| | No: Claims | 1-20 |
| Industrial applicability (IA) | Yes: Claims | 1-20 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V.

- 1 Reference is made to the following documents:
 - D1 : US 5 924 988 A (BURRIS ET AL) 20 July 1999 (1999-07-20)
 - D2 : PATENT ABSTRACTS OF JAPAN vol. 017, no. 285 (C-1066), 2 June 1993 (1993-06-02) &; JP 05 015529 A (MATSUSHITA ELECTRIC IND CO LTD), 26 January 1993 (1993-01-26)
 - D3 : US 6 669 639 B1 (MILLER BRAD A ET AL) 30 December 2003 (2003-12-30)
 - D4: US 2003/220565 A1 (MESAROS ROBERT ET AL) 27 November 2003 (2003-11-27)
2. The present application does not meet the criteria of Article 33(1) PCT, because the subject matter of claim 1 does not involve an inventive step in the sense of Article 33(3)PCT.
 - 2.1 Document D1, which is considered to represent the most relevant state of the art to the subject matter of claim 1, discloses (the references in parentheses applying to this document):

An ultrasonic diagnostic imaging system including main body housing imaging electronics and a control panel (see abstract; Figures 1, 2 and 5) comprising: a flat panel display (530) (Figure 5; abstract) and an articulating arm assembly to which the display is connected for adjusting the viewing position of the display, the articulating assembly including a first arm (560) movably mounted to the main body (by hinge 580) and a second arm movably connected to the first arm and to the flat panel display (see column 6, lines 12-20; Figure 5).
 - 2.2 The subject-matter of independent claim 1 differs from the disclosure of D1 in that: one of the arms includes a 4-bar linkage.
 - 2.3 The problem to be solved by the present invention may therefore be regarded as how to (re-)position the display over a wide range of viewing positions.
 - 2.4 In view of D2 the solution proposed in claim 1 of the present application cannot be

considered as involving an inventive step (Article 33(3) PCT) since D2 clearly teaches that the use of a 4-bar linkage (pair of links 9,10) with a piston for balancing the mass advantageously allows to position the display at an arbitrary position.

- 2.5 Therefore the features disclosed in D1 and D2 would be combined by the skilled person, without exercise of any inventive skills in order to solve the problem posed. The proposed solution in independent claim 1 thus cannot be considered inventive (Article 33(3) PCT).
3. In using the device of D1 (or of the combination of D1 and D2), the skilled person would routinely encounter that the articulating mechanism may strike any accessory device located on the top surface of cart (510) or may damage the surface itself. In order to solve this problem in a similar ultrasonic diagnostic imaging system, D3 teaches to incline the first arm by a fixed angle (see e.g. D3: column 2, lines 24-41; column 3, lines 20-23). Consequently, the subject-matter of independent claim 15 does not involve an inventive step.

Claims 16 to 17 do not involve an inventive step for the reasons given under point 2 above.

4. From document D1 is known an ultrasonic diagnostic imaging system including a wheeled cart, flat panel and an articulation mechanism (see point 2 above). The subject-matter of present claim 18 differs from this prior art in that it further comprises a laterally articulated control panel. This difference, however, does not involve an inventive step as this is rendered obvious by document D4 (see e.g. abstract). Claim 18, therefore, does not meet Article 33 (3) PCT for lack of inventive step. Claims 19 and 20 define features which are known from D1 and/or D2 and therefore do not involve an inventive step.
5. The further features of the remaining dependent claims are known or trivial in view of the prior art. Document D3 e.g. discloses the problem and solution associated with restricting the range of rotation to less than 360 degrees as in present claim 9

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/IB2005/050405

and with locking the arms and a user operated lock release as in present claims 4 to 5 (see e.g. D3: column 3, lines 13-22; column 4, lines 10-13; and column 3, lines 24-60).

Consequently, the subject-matter of claims 2 to 14 do not involve an inventive step.

Re Item VIII.

The various definitions of the subject-matter given in the plurality of independent claims, each reciting a different combination of limitations expressed at different levels of generalizations and largely repetitive, are such that the claims as a whole are not clear and concise. The requirements of Article 6 PCT, therefore, are not met.

Consequently, the different combinations of features recited in the plurality of independent claims do not allow to correctly identify "the claimed invention" on which an opinion in the sense of Article 33.1 PCT should be based.

Therefore, this presentation of a number of independent claims makes it difficult, if at all possible, to determine the matter for which protection is sought and places an undue burden to others seeking to establish the extent of monopoly requested.